

REMARKS

Reconsideration of the pending application is respectfully requested on the basis of the following particulars.

1. Priority

The applicants respectfully request acknowledgement of the receipt of the priority documents (Japan 2003-350331), as indicated on the Form 903 dated September 5, 2006, in the next Office communication.

2. In the specification

The specification is amended, as shown in the foregoing AMENDMENT TO THE SPECIFICATION, to correct an obvious informality. It is respectfully submitted that no new matter is added, as the change simply corrects a minor informality.

Entry of the AMENDMENT TO THE SPECIFICATION is respectfully requested in the next Office communication.

3. In the claims

As shown in the foregoing LIST OF CURRENT CLAIMS, the claims have been amended to more clearly point out the subject matter for which protection is sought.

Claims 1-12 are amended to remove reference numerals. It is respectfully submitted that no new matter is added, since the use of reference numerals does not affect the scope of the claims (MPEP § 608.01(m)).

Claims 1, and 9 are further amended in order to clarify that there is no invocation of 35 U.S.C. § 112, 6<sup>th</sup> paragraph. Specifically, in the case of amendments effectively changing an original claim element expressed as a “means plus function” that could raise a presumption of claim expression under 35 U.S.C. 112, 6<sup>th</sup> paragraph to a structural expression or to an expression removing the presumption of a “means-plus-function” statement, it is not intended to narrow the claim so amended for

purposes of patentability, but rather to place the claim in a form considered to be intended by the applicant from a foreign country where claim limitations described in terms of means-plus-function do not have the same effect as under U.S. practice. Thus, such amendments are intended to establish a full range of equivalents to the claim elements so amended under the U.S. doctrine of equivalents and beyond the range associated with "means-plus-function" expressions according to 35 U.S.C. 112, 6<sup>th</sup> paragraph, just as if the claim so amended was presented originally in its amended form. Thus, it is respectfully submitted that no new matter is added as the minor changes merely provide clarity without changing the scope of the claims.

Claims 1-3, 9, and 10 are also amended for the sake of clarity. In particular, the first and second radial directions are clearly defined and whereby clauses have been eliminated. It is respectfully submitted that no new matter is added by way of the amendment since the changes merely provide clarity with respect to previously recited elements and support for the clarification is found at least in paragraph [0041] of the specification as originally filed.

Claim 13 is further amended to recite that the positioning apparatus of claim 1 or 9 is provided to releasably clamp the second block to the first block. It is respectfully submitted that no new matter is added by way of the amendment since support for the change is found at least in paragraph [0125] of the specification as originally filed.

Entry of the LIST OF CURRENT CLAIMS is respectfully requested in the next Office communication.

4. Rejection of claims 1-14 under 35 U.S.C. § 102(b) as being anticipated by U.S. patent no. 6,604,738 (*Haruna*)

Reconsideration of this rejection is respectfully requested on the basis that the *Haruna* patent fails to disclose each and every recited element of pending claims 1 or 9. The remaining claims depend from either claim 1 or 9, and are therefore patentable as containing all of the recited elements of claims 1 or 9, as well as for their respective recited features.

Each of independent claims 1 and 9 are discussed below, along with deficiencies of the *Haruna* patent as related to each of independent claims 1 and 9.

By way of review, the embodiment of pending claim 1 requires a positioning apparatus having a plug member projected from a first block and inserted into a positioning hole formed in a second block. A plurality of slide portions that are opposed to each other in a second radial direction across the plug member are arranged around the plug member in a manner so as to be movable in a first radial direction that is substantially orthogonal to the opposed second radial direction. A diametrically expandable and contractible annular pressing member is arranged around an outer periphery of the slide portions. A drive arrangement drives the slide portions to diametrically expand the pressing member in the second radial direction and to press the pressing member against a peripheral surface of the positioning hole, wherein the slide portions are moved in the first radial direction.

As discussed in detail below, the *Haruna* patent fails to disclose at least a plurality of slide portions that are opposed to each other in a second radial direction across the plug member and arranged around the plug member in a manner so as to be movable in a first radial direction that is substantially orthogonal to the opposed second radial direction, and a drive arrangement that drives the slide portions to diametrically expand the pressing member in the second radial direction, all as required by pending claim 1.

The *Haruna* patent discloses a clamping apparatus for aligning and fixing a movable member M to a reference member R (col. 1, lines 42-45). The movable member M includes a positioning hole 12 for receiving a plug portion 21 (col. 1, lines 45-51). Formed with the plug portion is structure (hole 21a, transmission sleeve 31, hole 31a, engaging members 34) for engaging, retracting, and holding a pull rod 13 positioned in the positioning hole 12 (col. 1, lines 62-67). An annular shuttle member 23 is arranged between the plug portion 21 and the positioning hole 12 to provide an aligning guide for the movable member (col. 1, lines 52-54; col. 2, lines 28-30).

The plug portion 21 of the *Haruna* patent is integrally formed with a cover block 16 that is fixed to the reference member R (col. 4, lines 64-65; col. 5, lines 29-30). The hole 21a of the plug portion 21 for receiving the pull rod 13 therein includes a slant pushing surface 37 in correspondence with the engaging members, balls 34 for achieving proper movement of the balls 34 for engaging and locking (col. 5, line 66 through col. 6, line 2; col. 7, lines 28-31).

As noted above, the *Haruna* patent fails to disclose at least a plurality of slide portions that are opposed to each other in a second radial direction across the plug member and arranged around the plug member in a manner so as to be movable in a first radial direction that is substantially orthogonal to the opposed second radial direction, and a drive arrangement that drives the slide portions to diametrically expand the pressing member in the second radial direction.

The Office action indicates on page 2 that the slant pushing surface 37 of the *Haruna* patent is considered to be the slide portions recited in pending claim 1. This characterization of the slant pushing surface 37 is inaccurate.

Firstly, a single slant pushing surface 37 is disclosed that extends around the inner portion of the plug portion 21 that defines the hole 21a. Thus, in contrast to pending claim 1, the *Haruna* patent discloses a single slant pushing surface 37, and not a plurality of slide portions opposed to each other in a radial direction across a plug member.

Secondly, as discussed above, the slant pushing surface 37 is formed on an inner surface of the plug portion 21, which is formed as part of cover block 16, which is fixed to the reference member R. Thus, since the plug portion and cover block are fixed, the slant pushing surface 37 is also fixed. Since the slant pushing surface is fixed, it does not move in a first radial direction, as is required of the slide portions in pending claim 1.

Thirdly, since the slant pushing surface is fixed, there is no drive arrangement that drives the slant pushing surface to diametrically expand an annular pressing member, as required by pending claim 1. This is particularly true in view of the

construction of the Office action on page 2, in which the plug portion 21 is equated to the annular press member of pending claim 1. As previously discussed, the plug portion 21 is fixed and thus, the slant pushing surface 37 cannot cause the plug portion 21 to diametrically expand.

Thus, in view of the above, the *Haruna* patent fails to disclose at least a plurality of slide portions that are opposed to each other in a second radial direction across the plug member and arranged around the plug member in a manner so as to be movable in a first radial direction that is substantially orthogonal to the opposed second radial direction, and a drive arrangement that drives the slide portions to diametrically expand the pressing member in the second radial direction, all as required by pending claim 1.

Even if the engaging members 34 of the *Haruna* patent are considered to be slide portions arranged opposed to each other in an opposed direction, and are moveable, the engaging members 34 of the *Haruna* patent move in the *same* direction as the opposed direction, and not in a radial direction *substantially orthogonal* to the opposed direction, as required by amended claim 1 (Figs. 1-4; col. 5, lines 57-65; col. 7, lines 29-49). Specifically, in referring to Fig. 1 of the *Haruna* patent, the engaging members 34 are opposed to each other in the left and right direction as shown in the Figures, and the engaging members 34 also move in the left and right direction (Figs. 1-4). The engaging members do not, however, move in a radial direction substantially orthogonal to the opposed direction (which would be into and out of the page). Thus, the *Haruna* patent fails to disclose at least a plurality of slide portions opposed to each other across a plug in an opposed direction and arranged for movement in a first radial direction substantially perpendicular to the opposed direction, as required by pending claim 1.

Further, since the plug portion 21 is fixed, the engaging members 34 do not cause the plug portion 21 (which the Office action considers to be an annular pressing member) to diametrically expand, as is required by pending claim 1.

Even if the shuttle 23 is considered to be a pressing member, as can be seen in Figs 1-4 of the *Haruna* patent, the shuttle member 23 is separated from the engaging members 34 by the plug 21. Since the shuttle member 23 is separated from the engaging members 34 by the plug 21, the shuttle member 23 is also not diametrically expanded by the engaging members 34. Accordingly, since the shuttle member is not expanded by the engaging members, the shuttle member is clearly not diametrically expanded by the engaging members, and cannot satisfy the recitation in pending claim 1 of slide portions causing the annular pressing member to diametrically expand.

Further, the *Haruna* patent discloses plug member 21 positioned outside the engaging members 34 and inside the shuttle member 23 (Figs. 1-4). This arrangement is in clear contrast to the order of elements of plug, slide portions, and pressing member, as recited in pending claim 1. Thus, the *Haruna* patent fails to disclose the specific order of the plug, slide portions, and pressing member, as recited in pending claim 1.

In view of at least the above mentioned deficiencies, the *Haruna* patent fails to disclose every element recited in pending claim 1 and withdrawal of this rejection is respectfully requested.

Turning to pending claim 9, the recited embodiment requires a positioning apparatus having a plug member projected from a first block and inserted into a positioning hole formed in a second block. A plurality of slide portions that are opposed to each other in a second radial direction across the plug member are arranged around the plug member in a manner so as to be movable in a first radial direction that is substantially orthogonal to the opposed second radial direction. A drive arrangement drives the slide portions to diametrically expand in the second radial direction and to press against a peripheral surface of the positioning hole.

Similarly as discussed above, the *Haruna* patent fails to disclose at least a plurality of slide portions that are opposed to each other in a second radial direction across the plug member and arranged around the plug member in a manner so as to be movable in a first radial direction that is substantially orthogonal to the opposed

second radial direction, and a drive arrangement that drives the slide portions to diametrically expand the slide portions in the second radial direction so as to press against a peripheral surface of the positioning hole, all as required by pending claim 9.

The deficiencies of the *Haruna* patent discussed above with respect to claim 1 and the recited plurality of slide portions also apply with respect to pending claim 9, and thus will not be repeated here.

With respect to a drive arrangement that drives the slide portions to diametrically expand the slide portions in the second radial direction so as to press against a peripheral surface of the positioning hole, similar arguments follow from the discussion above. In particular, the slant pushing surface 37 of the *Haruna* patent is fixed, and does not diametrically expand. Additionally since the slant pushing surface 37 is positioned on the interior of the hole portion 21a, with the exterior of the plug portion 21 positioned between the slant pushing surface 37 and the positioning hole 12, there is no possibility that the slant pushing surface 37 could be diametrically expanded so as to press against a peripheral surface of the positioning hole, as required by pending claim 9.

The same failings exist even if the engaging members 34 are considered to be slide portions, since the engaging members 34 are also positioned on the interior of the hole portion 21a, with the exterior of the plug portion 21 positioned between the engaging members 34 and the positioning hole 12, and thus, there is no possibility that the engaging members 34 could be diametrically expanded so as to press against a peripheral surface of the positioning hole, as required by pending claim 9.

In view of at least the above mentioned deficiencies, the *Haruna* patent fails to disclose every element recited in pending claim 9 and withdrawal of this rejection is respectfully requested.

As mentioned above, applicants submit that independent claims 1 and 9 are patentable and therefore, claims 2-8 and 10-14, which depend from either claim 1 or 9, are also considered to be patentable as containing all of the elements of either claim 1 or 9, as well as for their respective recited features.

Application No.: 10/572,576  
Examiner: Wilson, Lee D.  
Art Unit: 3723

5. Conclusion

In view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is respectfully requested that every pending claim in the present application be allowed and the application be passed to issue.

If any issues remain that may be resolved by a telephone or facsimile communication with the applicants' attorney, the examiner is invited to contact the undersigned at the numbers shown below.

BACON & THOMAS, PLLC  
625 Slaters Lane, Fourth Floor  
Alexandria, Virginia 22314-1176  
Phone: (703) 683-0500  
Facsimile: (703) 683-1080

Date: February 28, 2008

Respectfully submitted,

/Patrick M. Buechner, Reg. #57,504/

PATRICK M. BUECHNER  
Attorney for Applicants  
Registration No. 57,504